

(FILE 'HOME' ENTERED AT 07:06:32 ON 22 OCT 2001)

FILE 'BIOBIS, MEDLINE, INPADOC' ENTERED AT 07:08:41 ON 22 OCT 2001

L1 899 OUTER ROOT SHEATH
L2 26 L1 AND 'CULTUR?' 'SA' FOLLICLE'
L3 17 DUPLICATE REMOVE L2 (9 DUPLICATES REMOVED)

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Number				
1	56	"outer root sheath"	USPAT; EPO; JPO; Derwent	2001/10/22 07:21

L3 ANSWER 14 OF 17 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE #
 AN 1991:24780 BIOSIS
 DN BA91:107405
 TI GROWTH FACTORS SPECIFICALLY ALTER HAIR FOLLICLE CELL PROLIFERATION AND
 COLLAGENOLYTIC ACTIVITY ALONE OR IN COMBINATION.
 AU WEINBERG W C; BROWN P D; STETLER-STEVENSON W G; YUSPA S H
 CS LABORATORY CELLULAR CARCINOGENESIS TUMOR PROMOTION, DIVISION CANCER
 ETIOLOGY, NATIONAL CANCER INSTITUTE, BETHESDA, MD. 20892, USA.
 SO DIFFERENTIATION, 1990; 45 (3), 168-178.
 CODEN: DFFNAW. ISSN: 0301-4681.
 FS BA; OLD
 LA English
 AB A three-dimensional culture model for isolated murine pelage hair
 follicles in a type I collagen gel had been utilized to study the effects
 of selected growth factors on follicle cell proliferation and release of
 collagenolytic factors. **Cultured follicle** organoids
 differentially express cytokeratins 6 and 14 in a pattern suggesting they
 contain cells of the **outer root sheath**,
 inner root sheath and follicle matrix. Using incorporation of
 [3H]thymidine as a measure of proliferation, follicle organoids show a
 peak of DNA synthesis between day 1 and 5 of culture, depending on
 plating
 density, and then have a low rate of DNA synthesis. Thymidine
 incorporation is stimulated by transforming growth factor-alpha
 (TGF-.alpha.) in a dose-dependent response. Only peripheral cells
 presumably of the **outer root sheath**,
 incorporate thymidine in basal or stimulated conditions. TGF-.beta.1 and
 TGF-.beta.2 inhibit constitutive cell proliferation and oppose growth
 stimulation by TGF-.alpha.. Hair follicles lyse the collagen gel matrix
 when exposed to certain cytokines. Epidermal growth factor (EGF) and
 TGF-.alpha. stimulate gel lysis, but TGF-.beta.1, TGF-.beta.2 and cholera
 toxin do not. Other skin-derived cells, such as interfollicular epidermal
 cells, dermal fibroblasts, or combinations thereof, do not lyse gels in
 this culture model even when exposed to growth factors. Combinations of
 EGF or TGF-.alpha. with TGF-.beta.1 or TGF-.beta.2 are synergistic for
 collagenase release. These cytokines stimulate release of multiple
 species
 of matrix metalloproteinases, but the 92-kDa and 72 kDa type IV
 procollagenases and their activated derivatives predominate on zymograms.
 In cytokine-stimulated follicles, both peripheral and centrally located
 cells in the organoids express the 72-kDa type IV collagenase and a
 similar immunostaining pattern is present in developing follicles in
 vivo.
 Thus growth factors appear to work in concert for certain hair follicle
 responses and in opposition for others. These combined actions may play a
 role in different phases of hair follicle development that require cell
 replication and invasion into the deeper dermis.

L3 ANSWER 15 OF 17 BIOSIS COPYRIGHT 2001 BIOSIS
 AN 1990:518249 BIOSIS
 DN BA90:135525
 TI ARCHITECTURE OF RECONSTRUCTED EPIDERMIS ON COLLAGEN LATTICES VARIES
 ACCORDING TO THE METHOD USED A COMPARATIVE STUDY.
 AU LENOIR M C; BERNARD B A
 CS CELL BIOL. DEP., CENT. INT. RECH. DERMATOLOGIQUES GALDERMA, F 06565
 VALBONNE CEDEX, FR.
 SO SKIN PHARMACOL, 1990; 3 (2), 97-106.

COFEN: SKPHEU.

ES BA; OLD

LA English

AB Epidermis was obtained in vitro after air exposure of keratinocyte cultures grown on a dermal equivalent. Some cultures were established from

enzymatically dissociated keratinocytes of either interfollicular epidermis or hair follicle **outer root sheath**

. Others resulted from centrifugal outgrowth of epidermal sheet, out of skin biopsies or hair follicles, which were directly implanted into dermal

equivalents. Whatever the system used, a multilayered epidermis was obtained with an overall architecture resembling that of human epidermis. However, depending on the tissue culture method used and the source of keratinocytes, significant differences were observed. The most striking finding was the difference in 67 kDa keratin expression: the only case where it was strictly suprabasal and homogeneously expressed in the cytoplasm of the cells, as in normal epidermis, was found in the

epidermis

obtained from follicle explants. With the other methods, the expression

of

this marker was delayed and patchy. These results are discussed in term of possible intrinsic differences between interfollicular and follicular keratinocytes.

L3 ANSWER